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THE NATIONAL SHIPBUILDING RESEARCH PROGRAM

Impact on Shipyards From Reauthorization of the Federal Clean Water Act

U.S. DEPARTMENT OF THE NAVY
CARDEROCK DIVISION,
NAVAL SURFACE WARFARE CENTER

in cooperation with
National Steel and Shipbuilding Company
San Diego, California

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FINAL SUMMARY REPORT

IMPACT ON SHIPYARDS FROM REAUTHORIZATION OF THE FEDERAL CLEAN WATER ACT

NATIONAL SHIPBUILDING RESEARCH PROGRAM PROJECT NO. N1-95-01

Prepared by

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CHAPTER I
INTRODUCTION

The Federal Water Pollution Control Act, amended by the Clean Water Act of 1977, was adopted in order to " restore and maintain the chemical, physical, and biological integrity of the Nation's waters". To achieve these objectives, the National Pollutant Discharge Elimination System (NPDES) was developed and implemented. The NPDES program established limitations on wastewater, stormwater and other water discharges from industrial operations. Shipbuilding is considered an industrial activity thus, discharges of water associated with shipbuilding are required to conform to the requirements of the Clean Water Act (CWA). Shipyard process areas most commonly affected by the CWA are drydocks, graving docks, painting facilities, railways, and maintenance facilities.

The reauthorization process was initiated by the Congress in 1993. Between 1993 and 1996 three reauthorization bills were introduced into the Senate and/or the House. Each of these bills focused on different objectives. The purpose of this project was to identify and review current CWA reauthorization legislation and assess the impacts of the passage of such defined legislation on the shipbuilding industry. A project team was assembled with the combined expertise to complete the project efficiently and effectively. The project team consisted of Avondale Industries, Inc., the operator of the fourth largest shipyard in the United States, Hartman Engineering, Inc., a consulting engineering firm with vast experience in the NPDES process and regulations as well as industrial wastewater discharges, and Walk, Haydel and Associates, Inc., a consulting firm engaged in the preparation of NPDES permits and best management guidelines for various industries and possessing a legal staff well versed in the drafting, implementation and interpretation of environmental legislation.

The following summary report identifies the objectives of this project and how they were achieved.

A. PROJECT OBJECTIVES

The objectives of NSRP Project No. N1-95-01 were as follows: 1) to identify the impact of the current CWA Reauthorization bill on the shipbuilding industry; 2) to establish existing point and non-point source discharges from shipyards; 3) in relation to shipyard activity, to identify processes utilized, waste streams associated with the identified processes, and areas of NPDES noncompliance; 4) to provide an avenue for the shipbuilding industry to remain updated and informed of potential impacts of the current reauthorization bill as it travels through committees; 5) to allow for the shipbuilding industry to maintain active involvement in the reauthorization process by providing comments that could be considered for submittal to Congress; and 6) to provide shipbuilding industry representatives with appropriate contacts in the House and Senate for CWA reauthorization questions and comments.

Activities undertaken to meet the project objectives included a literature survey to search

for articles relating shipbuilding to the CWA, establishing contacts with the staff of Congressional representatives to obtain draft reauthorization bills and status reports of reauthorization activities, development of a shipyard discharge survey to categorize discharges, processes, operations, and permitting, and use of project team expertise to formulate response documents based on information obtained through the latter activities. These activities are discussed in detail in later sections of this report.

TABLE 1.1
CLEAN WATER ACT REAUTHORIZATION BILL TRACKING
PRIMARY CONTACTS

INDIVIDUAL	TITLE/LOCATION
Mr. John Broussard (202) 224-1197	Administrative Assistant Senator John Breaux (LA)
Mr. Ben Grumbles (202) 225-4360	House of Representatives Water Resources and Env. Subcommittee
Mr. John Doyle (202) 225-2031	Administrative Assistant Representative Jimmy Hayes (LA)
Mr. Paul Cambon (504) 589-2753	Administrative Assistant Representative Bob Livingston (LA)

TABLE 1.2
CLEAN WATER ACT REAUTHORIZATION BILL TRACKING
HEARING INFORMATION CONTACTS

INDIVIDUAL/ORGANIZATION	TITLE/LOCATION/PRODUCT
Mr. George White	Lobbyist Avondale Shipyards
C-SPAN	Broadcasts of hearings
Internet	Government Documents HTTP:/Thomas.loc.gov
CNN	Broadcasts of hearings/ Other pertinent legislative action

TABLE 1.3
CLEAN WATER ACT REAUTHORIZATION
OTHER CONTACTS

HOUSE	SENATE	SHIPBUILDING INDUSTRY	OTHER
Mr. Bud Shuster, Chairman Committee on Transportation and Infrastructure (202) 225-2431	Mr. John Chafee, Chairman Environment and Public Works Committee (202) 224-2921	American Shipbuilding Association	Superintendent of Documents
Committee on Transportation and Infrastructure (202) 225-9446	Mr. Dwyane Mystrom, Clerk Environment and Public Works Committee (202) 224-7841	Shipbuilders Council of America	
Mr. Tim Landis House Informant (202) 225-4360	Environment and Public Works Committee (202) 224-6176	American Waterway Operators Shipyard Conference	

B. CONTACTS FOR BILL TRACKING

Government contacts utilized to track the progress of reauthorization legislation are listed in Table 1.1. Hearing documents and information were obtained from the sources listed in Table 1.2. Other contacts utilized for various information related to the CWA reauthorization process and the formulation of this document are listed in Table 1.3.

C. SUMMARY AND RECOMMENDATIONS

Tracking and summarizing Clean Water Act reauthorization legislation was performed through the second session of the 104th Congress (1996) into the first session of the 105th Congress (1997). The literature search and shipyard discharge surveys were performed during 1996, while the 104th Congress' Senate Environment and Public Works Committee was assigned to review H. R. 961, the Clean Water Amendments of 1995. H. R. 961 was the only CWA reauthorization bill under consideration during this time. No action had been taken by the Senate Committee to introduce the bill for discussion by the close of the 104th Congress, thus, it was terminated. H.R. 961 could be resurrected "as is" by either the House or the Senate, it could be reintroduced with modifications, or a new bill could be filed in either House during the first session of the 105th Congress.

In terms of reauthorization legislation, at the close of this project, no new legislation had been introduced and H. R. 961 had not been resurrected. Two response documents were filed with shipyards that participated in the discharge characterization survey. The first document was a response to the suggested revisions to the CWA presented in H. R. 961 that could be forwarded to the Senate Environment and Public Works Committee. This document was prepared prior to obtaining results from the shipyard discharge survey and considered only those modifications proposed under H. R. 961. A second response document was prepared in 1997. This response focused on providing the shipbuilding industry with the information necessary to initiate a proactive approach to CWA reauthorization. With no bill on the Congressional schedule, a document outlining positive modifications to the CWA could be submitted to Congressmen involved in the committees responsible for the reauthorization. The reason for a proactive approach was that Congressmen could incorporate the comments and concerns of the shipbuilding industry when drafting new legislation. The second response document was formulated from previously suggested CWA amendments, reauthorization bills, and reports as well as information received through the shipyard discharge survey.

The project team compiled for NSRP Project No. N1-95-01 recommends the following:

1. The shipbuilding industry should initiate contact with the individuals identified in Tables 1.1 and 1.3 to continue to track the CWA reauthorization process. These individuals can provide the industry with Congressional committee schedules, Congressmen drafting and filing new or revised reauthorization legislation, copies

of draft legislation and hearing documents, and updates on related legislation. Related legislation would include hearings and bills submitted that modify specific sections of the CWA, such as water quality standards and criteria, or other environmental laws including the Endangered Species Act, RCRA/SARA, and the Clean Air Act.

2. Utilize the second proactive response document to transmit the concerns and interests of the shipbuilding industry to Congress. This document contains information on issues the shipbuilding industry should support which were included in several reauthorization drafts. Such a submittal could allow for the interests of the industry to be incorporated into new CWA reauthorization legislation.

3. Response documents provided to industry representatives in fulfillment of the requirements of this project should be utilized as reference material for future response documents that may be prepared by individual shipyards or industry groups.

4. The shipbuilding industry should also focus efforts on the agency responsible for implementing and enforcing CWA legislation, the EPA. EPA may propose new regulations in response to Congressional pressure and proposed changes to CWA reauthorization. In particular, the shipbuilders should continue to track Metal Products and Machinery effluent limitation guidance. Also, specific provisions in CWA legislation that would prohibit water quality criteria based on sediments should effectively eliminate EPA regulatory efforts in such areas.

5. State regulatory agencies should be monitored for potential mandates relative to NPDES limits when the State has primacy for such issues. States with primacy may develop and pass effluent limitations that are more stringent than EPA effluent limitations. Such action could make achieving compliance with new limits difficult and expensive. An example of such activity is the implementation of limits for tributyltin by some states. These limits have proven to be costly, difficult to achieve, and may not have a substantial environmental benefit.

6. It is also apparent that efforts should also be focused on the implementation of CWA legislation by State agencies. CWA reauthorization should contain some measures which, as part of NPDES delegation, restrict the enforcement of extensive limits without cost/benefit analysis, etc. Prior to the implementation of limits on tributyltin, a cost/benefit analysis should have been performed to assess environmental benefit versus cost of compliance.

7. The direct impact of some of the proposed CWA modifications would be dependent on the regulations drafted by EPA or States to meet the modifications, such as stormwater programs and total maximum daily load limits. As regulations

are drafted to meet the CWA modifications, shipyards should obtain copies and comment prior to final passage of such regulations.

8. The shipbuilding representatives that participated in the discharge survey should compare their DMR data to response document suggestions. The lack of voluntary submittal of actual DMR data was a hinderance to maximizing project results. The industry should be aware of areas that indicate borderline compliance, which would be demonstrated through DMR data and proposed CWA modifications.

CHAPTER II
LITERATURE SEARCH

Task 1B of Project No. N1-95-01, Impact on Shipyards from the Reauthorization of the Clean Water Act, involved a literature search for articles, documents, etc. that related the shipbuilding industry to the Clean Water Act. The NSRP document library was contacted and one relevant document to the project was identified and obtained, a list is contained in Appendix A. Other documents from the NSRP were determined to be available, however, many were out-of-date. A key word search of government documents and other publications was conducted through the University of New Orleans library to establish if additional literature was available on this topic. This search yielded several Federal Register notices, seminar abstracts, Bureau of National Affairs (BNA) articles, and one periodical article. A detailed Literature Search Summary was provided to NASSCO in 1996. As indicated in the Summary, little new information was learned from the literature search and a correlation between NPDES noncompliance and the shipbuilding industry could not be drawn from the data obtained. The following is a brief summary of information presented in the Literature Search Summary.

Stormwater permitting guidance was uncovered from the EPA and from transcripts of the Coastal Zone '93 conference held in New Orleans, Louisiana. The guidance recommended stormwater permitting be performed by a group of related industries in states where group applications were acceptable or where EPA maintained primacy in administering CWA related permitting. This information proved to be not exceptionally useful because the multi-sector general permit for stormwater discharges was issued on September 29, 1995. This general permit covers in excess of 25 industrial activities, including shipbuilding and municipal stormwater discharges. The deadline for applying for coverage under the multi-sector permit for stormwater discharges was March 29, 1996. As indicated by the survey conducted in association with this project, many shipyards were already covered under individual permits or general permits. Requirements specific to shipyards under the multi-sector permit include general BMPs, pollution prevention requirements, employee training specifications, and visual monitoring of stormwater discharges. No analytical monitoring is required. The Literature Summary indicated that the 1996 reauthorization bill, H.R. 961, if passed, would have repealed the entire federal stormwater permitting program in favor of state developed programs. Since H.R. 961 did not pass the Senate during the 104th Congress, the bill no longer exists. The potential still exists for the bill to be resurrected or for a new bill to be drafted in the 105th Congress with the same language relative to stormwater permitting.

An update on the Metal Products and Machinery (MP&M) effluent limitations guidance was obtained through the Federal Register and through contacts with EPA. During 1996, EPA was collecting the data necessary for establishing the basis for Phase II of these regulations. The shipbuilding industry is covered under Phase II of these regulations. Data collection was to be conducted both by written survey and physical site specific sampling. Data collection and interpretation was scheduled to continue throughout 1996, with draft effluent limitation guidance planned for release in mid-1997.

Other literature uncovered by the search was directly related to alleged violations of the CWA by specific shipbuilders and related industries. Although these articles revealed discharge problems at some facilities, no conclusions could be drawn on the shipbuilding industry as a whole. Alleged violations included improper dry dock operations (failure to remove sources of pollution prior to submergence of dry dock facilities), failure to implement BMPs and sound management practices and failure to meet established wastewater discharge limitations on a variety of parameters including oil and grease, zinc, total suspended solids, chlorine, and hexavalent chromium. If proper BMPs and management practices had been followed, NPDES compliance would not have been a problem for these facilities.

CHAPTER III
REAUTHORIZATION LEGISLATION

A. INTRODUCTION

Upon initiation of Project No. N1-95-01, the active CWA reauthorization bill, S.2093, introduced into the Senate during the 103rd Congress, had been terminated with the end of the legislative year. A new CWA reauthorization bill was introduced in the House Committee on Transportation and Infrastructure during the first session of the 104th Congress. This bill was referred to as H.R. 961, Clean Water Amendments of 1995. H. R. 961 was passed by the Committee in April 1995 and was subsequently passed by the House of Representatives in May 1995. The bill was then assigned to the Senate Environment and Public Works Committee, chaired by Senator John Chafee of Rhode Island.

B. BILL SUMMARY OF H.R. 961, CLEAN WATER AMENDMENTS OF 1995

The following is a section by section summary of the changes proposed in the CWA through H.R. 961.

TITLE I - RESEARCH AND RELATED PROGRAMS

Section 101 - National Policy

Minor policy statement changes encouraging public and private sector programs for control of nonpoint source pollution, support to States to identify and implement water pollution prevention control strategies and encouragement of beneficial reuse of wastewater and biosolids and water use efficiency.

Section 107 - Formation of a Great Lakes Research Council

Creates a Council to oversee all federal Great Lakes research activities to coordinate and advise all agencies involved with a policy objective to determine how to meet Great Lakes Water Quality Agreement and to establish data bases. Also provides for the assessment and remediation of contaminated sediments by the implementation of at least 3 pilot projects to be conducted by the Army Corps of Engineers including at least 1 full scale demonstration of a remediation technology at sites in the Great Lakes.

TITLE III - STANDARDS AND ENFORCEMENT

Section 301 - Effluent Limitations

Deletes unreasonable time tables for compliance with effluent limitations for point sources and allows EPA to modify permit limitations based on BAT for all nonconventional pollutants (ammonia, chlorine, color, iron, and total phenols).

Avoids the requirement that EPA list a non-convention pollutant before a variance can be granted.

Section 302 - Pollution Prevention

Gives EPA or states ability to extend effluent limitation compliance deadlines (for no greater than 3 years) for point sources in order to encourage the use of innovative pollution prevention technologies, processes or recycling methods and prevents EPA from requiring states to perform anti-degradation reviews in the case of increased discharges resulting from eight different situations. Changes also allow for EPA and the state to extend the time an industry may have to comply with pretreatment requirements at a POTW where innovative pretreatment reduction processes, technologies or methods are used.

Section 303 - Water Quality Standards

Proposed changes here require that no water quality standard may be established unless there is a reasonable relationship between the costs and anticipated benefits of attaining the standard, the state may modify the designated use of a waterbody where it determines conditions present in the receiving water show the costs are not justified by the benefit, and prohibits EPA eliminating the use of mixing zones.

Section 304 - Biomonitoring

Whole effluent monitoring must use aquatic species indigenous or species representative to indigenous species to the type of waters concerned. EPA must establish permitting procedures that include analysis, identification or reduction or where feasible, for elimination of toxicity from discharges. A permittee can stop biomonitoring procedures if they can demonstrate through a field bio-assessment study that a balanced and healthy population of aquatic species lives in the water affected by the discharge.

Section 305 - Arid Regions

For arid areas a state cannot be required to establish recreation, aquatic life or fish consumption uses in constructed waterways if the uses are not existing or reasonably foreseeable, or such uses impede the authorized use of the conveyance system. States should establish criteria for ephemeral and effluent dependent streams including guidance on development and adoption of water quality standards for such streams.

Section 306 - Total Maximum Daily Loads (TMDL)

Authorizes the state to determine whether a TMDL is necessary to achieve further reasonable progress toward attainment or maintenance of water quality standards and allows the state to consider anticipated load reductions from implementation of

management practices, stormwater controls or other point/nonpoint sources in setting phased total maximum daily loads.

Section 307 - Water Quality Criteria, Standards, Limitations (Revisions)

Requirements would provide for EPA to consider water quality criteria for pollutant bioavailability and bioaccumulation threats, provide cost estimates for meeting new or proposed criteria, revisit criteria every 5 years to show that they reflect the best and latest scientific knowledge. Additionally, this section would provide for revision of effluent limitations and codifies the exemption for central treatment facilities for the Iron and Steel manufacturing point source category.

Section 310 - Toxic Pollutants

Requires that EPA consider the following in promulgating effluent standards or prohibitions for toxic chemicals:

1. Pollutant's persistence, toxicity, degradability and bioaccumulation potential.
2. Magnitude and risk of exposure to pollutant.
3. Relative contribution of point source discharges of the pollutant to overall risk from the pollutant.
4. Availability of, costs associated with, and risk posed by substitute chemicals or processes or the availability of treatment processes or control technology.
5. Beneficial and adverse social and economic effects of the effluent standard, including impact on energy sources.
6. Extent to which control may be achieved under other regulatory authorities.
7. Impact on national security interests.

Section 311 - Pretreatment

Allows POTW to apply local pretreatment limits in lieu of national categorical pretreatment limits if it meets certain standards.

Section 312/307 - Discharge of Silver

Dischargers of silver may comply with a code of management practices for no more than five years in lieu of compliance with pretreatment standards based on an effluent limitation of the treatment works derived from a water quality standard for silver and lists the code of management practices.

Section 313 - Federal Enforcement

Penalties shall be adjusted according to the consumer price index.

Section 314 - Oil or Hazardous Substances Response Plans

Exempts storage of "de minimis" quantities from the facility response planning requirements.

Section 318 - Cooling Water Intake

Establishes which factors EPA must consider when setting Best Technology Available for cooling water intake structures.

Section 319 - Nonpoint Source Management

New program would require states to submit a nonpoint source management program which includes management practices and measures to reduce pollutant loadings. These may be voluntary, incentive based, regulatory programs, enforceable policies, or State policies under the CZMA (1972). All programs must be designed to attain water quality standards within 15 years. If a state does not submit or implement a program, EPA will prepare and implement a program. It also makes participation in the Coastal Nonpoint Pollution Control Program voluntary, unless EPA determines the program is necessary to supplement the proposed nonpoint program.

Section 321 - State Watershed Management Programs

Allows for States to submit watershed management programs on a voluntary basis which must identify waters attaining water quality standards and water that don't and how to maintain or achieve the standards. A discharger, in order to offset the impact of pollutant, can enter into arrangements for implementation of controls/measures by another discharger or source through a pollution reduction credits trading program. Grants will be available to assist in this process.

Section 322 - Stormwater Management Programs

Calls for the repeal the existing Municipal and Industrial Stormwater Discharge Program and requires states to develop stormwater management programs. Provides for EPA assistance in meeting requirements of this provision within 15 years after date of approval of state stormwater management program and provides for EPA to develop a program for a state if the state fails to develop one. The section lists constituents of the stormwater management program which include: the identification of waters that can not be expected to meet or maintain water quality standards without action to control pollution from stormwater; identification of categories of stormwater discharges that add significant pollution; should contain processes for identifying control measures and programs for controlling stormwater pollution. Such a program should have a section specifically for industrial, commercial, oil, gas, and mining discharges requiring voluntary activities (if rainwater does not contact pollutants), enforceable plans, general permits, site-specific

permits, and small business exemptions. Plan also provides for the development of stormwater criteria to protect navigable waters from impairment due to stormwater discharges. This criteria could include new standards, guidance and treatment requirements. States would have the option to impose effluent limitations to control pollutants in stormwater.

Section 323 - Risk Assessment

EPA and the Army Corps of Engineers must conduct risk assessment prior to issuing any standard, effluent limitation, water quality criterion, water based requirement or, other regulatory requirement or guidance which results in annual costs of $25 million or more.

Section 324 - Benefit/Cost Criteria

Prior to issuing any standard, effluent limitation, water based requirement, other regulatory requirement or any guidance which results in annual costs of $25 million or more, EPA and the Army Corps of Engineers must show substantial evidence that they maximize net benefits. The section exempts permits, procedural requirements, water quality criteria, and water quality based standards from the benefit/cost determination.

TITLE IV - PERMITS AND LICENSES

Section 402 - Permit Reform

Any effluent limitation established in a permit under Section 402 will be reviewed every 10 years (an increase from 5 years) when the permit is reissued and, if appropriate, revised. Additionally, quantification levels will be established in less than one year from enactment of this act based on lowest level at which a pollutant can reliably be quantified on an interlaboratory basis. A permit limitation can be set below this level, however, an exceedence of such limitation (that is still below the set quantification level) would not constitute a violation.

Section 404 - Statistical Non-compliance

A permittee can have an affirmative defense based upon; the permittees number of excursions from the technically based effluent limits are not greater (annually) than the number of excursions expected from the technology on which the limit is based and that the discharges do not violate an applicable water quality based limitation or standard.

Section 405 - Anti-backsliding Requirements

Clarifies that anti-backsliding provisions apply to increases in the concentration or loading of pollutants and not increases caused by other additions, such as additional water.

Section 406 - Credits

Credit may be issued for pollutants present in intake water. The operator will not have to treat, remove or reduce the amount of any pollutant in an effluent below the amount of such pollutant that is present in the intake water (unless the receiving water is different and such pollutant would cause some water quality impact. In this case the pollutant would have to be removed to the extent that it did not cause receiving water impact).

Section 1001 - Coastal Nonpoint Pollution

Makes participation in the Coastal Nonpoint Pollution Control Program voluntary, unless EPA deems it necessary to supplement the nonpoint program created in Section 319.

C. POTENTIAL IMPACTS TO SHIPYARDS FROM H. R. 961

The following section details, by title, the potential impacts of the passage of H. R. 961 on the shipbuilding industry.

TITLE I - RESEARCH AND RELATED PROGRAMS

Proposed policy changes and the formation of a Great Lakes Research Council should not directly impact the shipbuilding industry. Policy changes reflect the current public sentiment of reduction and reuse of wastes and waste products, activities that have been voluntarily implemented by shipyards across the country. The new research council was formed primarily to coordinate and implement Great Lakes research projects, most of which have been designed to assess the current health of the ecosystem.

TITLE III - STANDARDS AND ENFORCEMENT

Various changes under this title could have direct impacts on the shipbuilding industry.

1. Could give more authority for EPA and states to modify permits based on BAT for nonconventional pollutants potentially causing shipyards to implement additional pollution control technologies or modify production processes without measurable environmental benefit.
2. Increasing the time allocated for meeting compliance deadlines could benefit the industry by providing the ability to test different waste treatment methods.
3. Mandatory requirements for pollution prevention would increase compliance costs to shipyards. Shipyards have pursued voluntary pollution prevention controls in order to improve discharge wastewater and stormwater quality. Such controls should be voluntary in order to provide flexibility to shipyards in meeting regulatory requirements.

4. Permitting the use of indigenous aquatic species for biomonitoring requirements could benefit shipyards because the currently mandated species do not necessarily thrive in the receiving waters of all shipyard discharges. Indigenous species may have a higher tolerance for some pollutants than those currently utilized.
5. Should states be authorized to determine if the development of a TMDL would be necessary to achieve reasonable progress towards attainment/maintenance of water quality standards and allowed to consider load reductions, new load limits could be nonattainable based on current production practices utilized at shipyards. This may be especially true for stormwater discharges since the fabrication of large vessels requires much of the production process to occur outdoors. It may be economically infeasible to implement controls to meet the potential load reductions.
6. The EPA can consider the development of new effluent standards or prohibitions for toxic chemicals. If costs associated with developing effluent standards or prohibitions of toxic chemicals are considered and if arbitrary reduction limits are not imposed, shipyards would likely be less affected by new requirements. The extent of impacts would be based on the toxic chemicals identified.
7. Repealing the existing Municipal and Industrial Stormwater Discharge Program in favor of state developed programs could have major impacts on shipyards depending on the state in which the shipyard is located. The potential exists for state stormwater management programs to increase the pollution control measures currently utilized by shipyards and for increased costs associated with the sampling and monitoring of stormwater discharges. The large land areas encompassed by most shipyards make it difficult and costly to minimize stormwater outfalls and provide treatment for the outfalls.
8. Developing a separate nonpoint source regulatory program would likely duplicate the efforts performed under stormwater management programs and increase costs to shipyards for formulating programs to manage stormwater and nonpoint source pollution separately.
9. Shipyards could benefit by the implementation of forced cost/benefit criteria analysis of all proposed or renewed water quality standards, effluent standards and limitations, water quality criteria and other water based requirements, and other regulatory requirements or guidance. Such action should be requested of states with primacy as well as the EPA. Additionally, this action should prevent the increase of pollution control measures without sound scientific evidence and vast environmental benefit. This review did not occur when limits on tributyltin were introduced in some states and it has been documented that new limits on tributyltin are difficult to achieve.
10. By not eliminating the use of mixing zones, shipyards can maintain flexibility and economy in meeting water quality standards.

TITLE IV - PERMITS AND LICENSES

Proposed changes under this title would have some impact on the industry, however, the impact is deemed to be somewhat beneficial. Increasing the permit renewal period from five to ten years could result in less cost to shipyards for maintaining active permits. Credits could be instituted for shipyards that utilize intake water from polluted water bodies, and participation in the Coastal Nonpoint Pollution Control Program could become voluntary.

D. PREVIOUS ISSUES OF CONCERN

This section addresses issues related to the Clean Water Act Reauthorization that have been highlighted through previously proposed reauthorization bills, reports, etc. Issues addressed and a suggested industry stance are provided.

Effluent Guidelines

It has previously been suggested that EPA, in setting effluent guidelines, should make source reduction its highest priority, and mandate changes in production processes, products or raw material usage to achieve the guidelines.

From an industrial standpoint: EPA already has the authority to change effluent guidelines when necessary to protect the environment. Effluent guidelines should be performance based and allow industry flexibility to innovate in meeting the standards. EPA does not have the technical expertise to mandate production changes. Such mandating would likely be costly, inhibit innovation, slow pollution prevention measures, impact water and air quality, and upset existing process licensing and contractual agreements.

Toxic Pollutant Phaseout

It has been proposed to require EPA to study substances found in water that may impair the development and reproduction of aquatic life, wildlife and humans. EPA would be required to develop, within seven years, a strategy to reduce these toxics by at least 85%. Some initiatives include provisions for citizens to petition EPA for effluent standards or prohibitions.

The shipbuilding industry may not be opposed to the study of substances that may impair development and reproductive processes, however, the industry would question the basis of the 85% reduction goal. Reductions in discharges should be based on sound scientific principles, risk assessment techniques, and be based on a cost-benefit analysis. There should also be provisions for "de minimis" discharges. The use of citizen petitions is likely to result in reduction goals not based on scientific principals. Impacts will also be dependent on toxic pollutants selected for phase out.

Domestic Sewage Exclusion

It has been proposed to eliminate the domestic sewage exclusion (DSE) by requiring companies to meet water effluent standards at the point of discharge into a POTW. The DSE allows certain hazardous wastes to be discharged to POTWs without being subject to RCRA, which would duplicate CWA requirements. This would require companies install the same treatment capability already provided by the POTW, resulting in duplicative costs without any environmental benefits. This may impact shipyards with permitted discharges to POTW's.

Mixing Zones

Mixing zones are areas of surface water where point source discharges are allowed to exceed water quality standards while they mix with the receiving water. It has been proposed that EPA ban mixing zones for discharges containing substances that are persistent, acutely toxic or bioaccumulative.

The shipbuilding industry would be opposed to the elimination of mixing zones. Mixing zones provide flexibility and economy in meeting water quality standards. It allows for discharge requirements to reflect the site specific nature of the receiving waters. There has been no technical or scientific basis demonstrated to support the banning of mixing zones. To do so results in lower effluent limitations and may require the industry to install additional pollution prevention equipment without significant environmental benefit. The impact would be dependent on selection of compounds as acutely toxic or bioaccumulative.

Groundwater

The CWA addresses surface water, with states having the primary authority to protect and manage groundwater. Previous proposals would expand the CWA to require EPA to establish effluent limitations and permit requirements for certain discharges to the ground or groundwater, including nonpoint source discharges.

The state and other federal laws (RCRA, CERCLA, Safe Drinking Water Act) adequately protect against groundwater contamination. States should have primacy for groundwater protection since the flow of groundwater tends to be local with unique geologic characteristics confined within a state. Also, the point source program is not applicable to groundwater because the sources of groundwater contamination are diffuse and the groundwater connections with surface waters are often uncertain and difficult to establish. Some shipyard activities such as graving docks could be impacted by changes in groundwater regulations.

Extension of Effluent Standards

A previous bill would extend water quality standards to groundwater, nonpoint sources, sediment, habitat areas and biota. Impaired waters would be identified based on water quality standards, including sediment, habitat, and biota quality. Control of nonpoint sources and stormwater could be through site specific water quality plans in lieu of management measures.

Current water quality standards are not suitable for groundwater, nonpoint sources, sediment, habitat areas or biota. New standards should be performance based, use applied scientific principles, risk assessment and cost/benefit analysis. Time tables for compliance would also be necessary. Such changes again could result in further effluent limitation of shipyard discharges which are established to have potential to cause sediment contamination or bioaccumulation. Shipyards utilizing best management practices to control discharges might have to implement further controls.

Remediation Requirements

An initiative would change the CWA from a pollution prevention statue to a remediation statue. It would provide for injunctive relief to force violators to remove contaminated fill or sediments or pollutants from waters and the banks of waterways.

EPA already has this authority through other federal statues. Shipyards near areas of contaminated sediment might incur future cleanup costs for these sediments, not currently covered by existing regulations.

Pollution Prevention Planning

A initiative would require facilities that report under Section 313 of the Emergency Planning and Community Right to Know Act to develop pollution prevention plans for chemicals covered by the act. Such initiatives have covered both discharges to water bodies and discharges to a POTW requiring pretreatment.

Pollution prevention should remain flexible and voluntary. The opportunities for shipyards to improve the water quality of their discharges through pollution prevention may be limited. Mandated pollution prevention directed at specific chemicals would take away from facilities the ability to address their own pollution prevention priorities and chemicals of highest risk at the facility and would involve decisions about manufacturing processes that are site specific.

Antidegradation Policy

A bill would require EPA to develop restrictive antidegradation policies for certain water bodies and force the states to adopt them and prevent water quality from being lowered or degraded.

This bill would shift antidegradation policy decisions from the states to the federal government. The state should retain control since antidegradation issues are typically local and site specific.

Chlorine Phaseout

Continue to follow as the concern is that the plan put forth by EPA may become the model for all toxic use reduction. If chlorinated compounds are included, it may drastically impact the type of solvents utilized by the shipbuilding industry in their painting operations.

Citizen Suits

A bill was presented that would reverse a Supreme Court decision and allow citizen suits for past violations that have been corrected and not repeated.

Citizen suits are intended to improve water quality by allowing citizens to sue to enforce compliance with the CWA. Suits for past violations that have been corrected and not repeated serve no purpose. This could open any previously noncompliant shipyards to additional liability from citizen suits.

CHAPTER IV
1995/1996 CHRONOLOGY OF REAUTHORIZATION ACTIVITIES

From the first session of the 104th Congress to the first session of the 105th Congress, only one reauthorization bill had been under consideration, H.R. 961. The following represents the path of H.R. 961 from its passage by the House of Representatives to the activity that followed upon assignment of the bill to the Senate Environment and Public Works Committee.

A. 104TH CONGRESS/1995-1996

PASSAGE OF H.R. 961

H. R. 961 passed the House Committee on Transportation and Infrastructure on April 16, 1995 by a 42-16 vote. The bill was passed by the House on May 16, 1995 by a vote of 240-185. H.R. 961 was referred to the Senate Committee on the Environment and Public Works, chaired by Senator John Chafee (R-RI). Senator Chafee did not support this bill and was expected to keep it in committee and not bring the bill up for consideration.

MAY 1996

Continued tracking of H. R. 961 indicated that there had been no Senate action to move the bill out of committee. There had been five full committee and subcommittee hearings through May, but no action had been taken as a result of those hearings. The only subcommittee that held hearings was the Clean Air, Wetlands, Private Property, and Public Safety Subcommittee. These hearings were held in July, August and November of 1995, and were all held for SA 51, the Wetland Regulatory Reform Act. The full committee held two meetings. In December 1995, they met to discuss municipal issues. In April 1996, the committee met to review a fact finding document relative to mitigation banking. It was rumored that Senator Chafee was drafting a new reauthorization bill. Senator Chafee would likely focus on stormwater issues, combined sewer overflows, watershed planning, and wetland regulation reform in any bill drafted by his office.

JULY 1996

Senator Chafee had not yet brought up H. R. 961 for consideration or a new version of the bill to the Committee on the Environment and Public Works. There were no new hearings by any of the subcommittees or by the full committee since April, 1996. It was anticipated that the Senator would bring up the bill (H. R. 961) for discussion prior to the end of the 1996 legislative year.

SEPTEMBER 1996

No action had occurred relative to Clean Water Act reauthorization. The Senate was on leave until September 3, 1996, and there were no hearings or other action scheduled on H.R. 961 through October. The legislative year was scheduled to end in October, and it

did. H.R. 961 was not introduced into committee and did not pass during the 104th Congress.

B. 105TH CONGRESS/1997

STATUS OF CLEAN WATER ACT REAUTHORIZATION - JANUARY THROUGH MARCH, 1997

With the conclusion of the 104th Congress, H.R. 961 expired. This bill would have to be reintroduced by the House or the Senate in order to be considered active legislation. Presently, it is assumed that bill drafting is ongoing in the House and Senate, however, there are no Clean Water Act Reauthorization bills scheduled to be introduced in either House over the next three months. Representative Sherwood Boehlert Chairman of the House Transportation subcommittee plans to hold a series of "investigative" oversight hearings on the Clean Water Act as preliminary steps to reauthorization. However, reauthorization is not the water resources panel's top priority for 1997.

CHAPTER V
SHIPYARD DISCHARGE SURVEY

A. INTRODUCTION

A shipyard discharge survey was developed and performed fulfilling the requirements of Task 2 of the Impact on Shipyards from the Reauthorization of the Clean Water Act project. The purpose of the survey was to gather process and regulatory compliance information in order to prepare appropriate responses to Clean Water Act reauthorization legislation.

The survey was composed utilizing information obtained during a tour of Avondale Shipyard, a review of previous legislation related to reauthorization of the Clean Water Act, and a preliminary review of H.R. 961. HEI staff toured the facilities of Avondale Shipyard in Jefferson Parish, Louisiana, to identify point and non-point source discharges from shipyard processes and to identify potential problems associated with those discharges. Previous legislation was reviewed to establish potential changes that could be reintroduced if H.R. 961 did not pass. H.R. 961, was reviewed and areas of potential impact to shipyards were determined. This information was used to develop questions that would yield the most pertinent data to address the changes proposed in the bill. The survey was mailed to eighteen shipbuilding facilities. Two of the original eighteen facilities ceased shipbuilding operations and would not respond to the survey. Of the remaining sixteen, eleven returned completed surveys (72%).

The following section contains the results of the survey received by the sixteen shipyards that participated in the survey. Appendix B contains a copy of the survey. Appendix C provides a tabular summary of survey results. As indicated by the survey copy, HEI requested stormwater and/or wastewater discharge permits from the shipyards to assist in the development of response documents. Shipyards included in the survey were:

1. Avondale Industries, Inc. (LA)
2. Bath Iron Works (ME)
3. General Dynamics - Electric Boat Division (CT)
4. Ingalls Shipbuilding (MS)
5. National Steel and Shipbuilding Company (NASSCO) (CA)
6. Newport News Shipbuilding (VA)
7. Atlantic Marine, Inc. (FL)
8. Bender Shipbuilding and Repair Company, Inc. (AL)
9. Bollinger Machine Shop and Shipyard, Inc. (LA)
10. Halter Marine, Inc. (MS)
11. Marionette Marine Corporation (WI)
12. McDermott Shipbuilding, Inc. (LA)
13. Metro Machine Corporation (VA)
14. Norfolk Shipbuilding and Drydock Corporation (VA)

15. Southwest Marine, Inc. (CA)
16. Sperry Marine, Inc. (VA)

B. SURVEY RESULTS

The surveys and permit information provided a more in depth and accurate picture of current shipyard processes, practices, pollution control methods, and permit requirements. Although only a 72% response was achieved, common ground between shipyards operating in different regions of the country could be readily established.

Processing information obtained included data on blasting, metal fabrication, painting, barge cleaning, and x-ray shop operations. Blasting materials included coal, coal slag, sand, steel, garnet, copper slag, and glass. Most of the shipyards surveyed recycled blasting materials to the point that they could no longer be utilized for blasting. At this time, some shipyards deposited the spent blasting material in a solid waste landfill, while others recycled spent blasting materials. Blasting occurred in and out of doors. Best Management Practices (BMPs) were in place for managing stormwater discharges that contact blasting materials at most shipyards. Some had stormwater sampling requirements for the blasting area, but not all facilities required to sample had established limits, only reporting requirements. Those facilities that conducted on site metal fabrication usually performed such activities inside fully enclosed buildings. Metals included steel, aluminum, zinc, copper, and nickel. Painting was performed in enclosed areas or temporary enclosures with and without roofing. Most paint storage areas were fully enclosed or covered and all were provided with secondary containment. Paint wastes appeared to be properly stored at the shipyards surveyed and picked up for disposal in a timely manner. The majority of the shipyards indicated that spill prevention and control plans are in place for the handling of paint, solvent and paint waste spills. Contamination from paint spills was anticipated to be minimal. Very few of the shipyards surveyed did not have fully enclosed paint storage areas. Those that could have stormwater contacting the storage areas, collected stormwater in drums for hazardous waste pick-up or treated stormwater through on-site treatment systems. BMPs were assessed to be widely utilized for painting activities. Stormwater sampling requirements for paint and paint storage areas often did not include limits, but the parameters reflected substances often found in paint products. All facilities utilizing on site x-ray development had pretreatment systems in place to remove/recover silver from the waste stream prior to discharge to a POTW or prior to mixing with other waste streams from the facility.

The majority of the shipyards surveyed had one central location and one or more satellite storage areas for hazardous waste. Paint waste and other liquid waste (solvents) appeared to be the most common products stored in these areas. Only a few of the hazardous waste storage areas had contact with stormwater. At these sites, the uncontaminated stormwater was pumped to the onsite wastewater treatment plant and discharged to a POTW or the contaminated stormwater was collected in drums and disposed with the other hazardous wastes.

Shipbuilding facilities conducted maintenance activities inside and outside. Indoor maintenance was usually for small vehicle maintenance and overhauls. Outdoor activities included large equipment fluid changes, steam cleaning, and equipment cleaning. Waste generated by maintenance operations included oil, fluid filters, hydraulic fluid, oily rags, batteries, grease, and antifreeze. Some of these products were recycled, such as the batteries and clean used oil. The other products were disposed with the hazardous waste or collected separately for disposal. Washracks with wastewater collection and treatment through oil/water separators were the most common outside facilities provided. These areas were typically covered to prevent stormwater from mixing with the washwater. BMPs were determined to be in place and appeared to adequately address stormwater discharges from these areas. Additionally, a few stormwater discharge permits for shipyards establish limits for and most required sampling for oil and grease. Insufficient daily monitoring reports (DMRs) were obtained to appropriately characterize the impact of maintenance activities on oil and grease levels in discharge water.

Permit information, obtained through the survey or through the State regulatory agency, indicated that requirements are highly variable from state to state for each of the facilities surveyed. Onsite sanitary treatment facilities or other wastewater treatment facilities were usually permitted separately from other shipyard waste streams. Some facilities were permitted as zero discharge facilities for discharges other than stormwater. In terms of effluent monitoring requirements, almost all of the facilities were required to monitor for and report SARA Title III, 313 Water Priority Chemicals (toxics/hazardous) and abide by categorical limits set for the industry SIC codes: 3731 and 3732. Most of the stormwater and some of the effluent monitoring requirements required sampling and analysis, but did not provide upper limits for specific constituents. pH, temperature, tributyltin (TBT), lead, and copper were the parameters that most often had established limits. In most cases, other metals (dissolved and total recoverable), oil and grease, flow, solids (TSS), BOD, COD, ammonia, xylenes, biocides, etc. did not have limits. Two states required sediment sampling and analysis; one was in the initiation phase of the program and the had an established contaminated sediment plan for the receiving water. The established program required sampling of surfical sediments for trace metals, TBT, TPH (total petroleum hydrocarbons), PCB/PCTs, PAHs (polyneucleic aromatic hydrocarbons), and the performance of paint chip analysis. Few facilities were required to perform biomonitoring.

Most states required fairly comprehensive stormwater pollution prevention plans, BMPs, and toxics management plans. Some shipyards had to adhere to basin or watershed plan requirements and all could not alter or cause to be altered the designated uses of the waterbodies to which they discharge. No shipyards reported recurring compliance problems with discharge limitations or reporting requirements. However, most are only required to report constituent concentrations. If limits are set in the future, compliance may be a problem. Insufficient data from DMRs was obtained through the survey to establish constituent concentrations that would be unreasonable or difficult to meet. For

this reason, as well as the uncertain direction each state may follow in developing new programs and the limits they may want to establish, the impact of State permitting was difficult to assess.

The questions under General Treatment Practices were related to recycling, use of Best Available Technology (BAT) and pollution control measures. Answers revealed that the industry implements recycling or beneficial reuse programs for most materials that are recyclable or capable of reuse. Batteries, cardboard, blasting materials, and metal were listed as the most commonly recycled/reused materials. Some shipyards discharged to POTWs that land apply biosolids as a form of beneficial reuse. In terms of increasing pollution prevention, the reduction or elimination of organic based paints and solvents would be recommended. Most of the shipyards surveyed indicated that the BAT and BMPs in place were effective. Some shipyards also agreed that more advanced technology likely exists for pollution prevention and treatment, but it would be cost prohibitive for the industry to obtain such technology. The shipyards did indicate that they would be willing to try new technologies if funding assistance was available and if EPA would be willing to negotiate permit violations that could occur during the trials of new technology.

These results were incorporated into one of the response documents presented in Part Six of this report.

CHAPTER VI
RESPONSE DOCUMENTS

A response document, as related to this project, could be considered a suggested document designed to relay the concerns of the shipbuilding industry to local Congressional Representatives and Congressional Committee Chairmen responsible for passage of CWA reauthorization legislation. The shipbuilding industry should consider the use of such documents to initiate a pro-active approach to the development of new legislation. Reauthorization of the CWA will affect the Shipbuilding Industry and whether or not those affects are positive or negative could be influenced by widespread industry response to previously drafted and proposed legislation.

Since the initiation of work on the CWA reauthorization project, two response documents were prepared. The first document was a suggested response to changes proposed in the CWA by H.R. 961. The second document was designed to be a pro-active document indicating areas of the CWA that were considered to be of specific interest or concern to the shipbuilding industry.

Response Document #1 represents the suggested response document to H.R. 961 that was sent in May 1996 to the sixteen shipyards that participated in the survey. The document was provided in letter format as it is presented in Appendix C. The comments were based on the modifications to the CWA as recommended in H.R. 961. Topics discussed in this document include the following:

1. Mandatory versus voluntary efforts in pollution prevention and compliance deadlines for implementing pollution prevention measures.
2. The use of indigenous species for biomonitoring procedures.
3. The potential establishment of total maximum daily load limits.
4. The establishment of toxic pollutant effluent guidelines or prohibitions should be subject to cost effectiveness study and should only be developed on a sound scientific basis.
5. Potential modifications to pretreatment requirements.
6. A change in the planning requirements for oil or hazardous substances response plans.
7. A pollution reduction credits trading program under state watershed management programs.
8. The proposal to repeal the existing stormwater discharge program in favor of state developed programs.
9. Requiring a reasonable cost/benefit relationship be established for all new water quality standards.
10. The revision of permit renewal action from 5 to 10 years along with a potential change of quantification levels under permit reform.

Response Document #2 was designed to be submitted to local Congressmen and the Congressional Committee Chairmen and members responsible for CWA reauthorization legislation for use when drafting new legislation. This document was submitted to the surveyed shipyards after review by Mr. John L. Whittenborne, of Collier, Shannon, Rill and Scott in March 1997. It was also presented in letter format and is contained in Appendix C. The second response

document differs from the first in that it is a proactive document and it incorporates responses to the discharge survey, comments on H.R. 961, and comments on previously submitted reauthorization legislation, reports and studies. Items discussed within this document include: voluntary pollution prevention; cost benefit criteria and assessment; pollution reduction credits; exclusion of sediment based criteria; biomonitoring utilizing indigenous species; pretreatment; a combined stormwater and nonpoint source management program; the extension of permit renewal time requirements; funding assistance for BAT development; effluent guidelines; exclusion of groundwater provisions from the CWA; and the prevention of citizen suits filed for past violations.

CHAPTER VII
CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

NSRP Project N1-95-01 was designed with a one year time frame from initiation to completion. During this one year, late 1995 to late 1996, little legislative action occurred relative to the discussion and passage of a reauthorized Clean Water Act. A time extension was granted for this project with the anticipation of new action during the first session of the 105th Congress, which convened in January 1997. As stated in this report, there had been no draft bill submitted for discussion in either House from January to March 1997 and none were expected to be introduced for April. Based on this situation, the following conclusions can be drawn from the work conducted in accordance with this project:

1. Under current federal wastewater/stormwater permitting guidelines, the shipbuilding industry maintains a strong record of compliance. DMR data, which was not made available to HEI, would further define the extent of compliance and would identify any areas of borderline compliance. The lack of DMRs requested on a voluntary basis was a hinderance to maximizing project results. Any new projects related to NPDES permit guidance or CWA reauthorization would benefit greatly from the provision of this discharge specific data.

2. Voluntary stormwater pollution prevention programs and management practices initiated by most shipyards appear to be effective in preventing contamination of stormwater, thus also preventing contamination of receiving waters.

3. The shipbuilding industry appears to have adopted the reduce, reuse, recycle philosophy voluntarily.

4. Shipyards should consider the reduction or elimination of organic based paints and solvents to improve stormwater discharge quality and to prepare for the potential of more stringent regulations regarding such substances.

5. Reauthorization of the CWA will impact current operations and processes performed at shipyards throughout the country. Potential mandatory stormwater and non-point source program compliance along with mandatory pollution prevention requirements could cause increased compliance costs as well as force changes in operations and processes. New toxic substance and sediment remediation programs could have similar impacts.

6. By utilizing the response documents presented to the selected shipyards, the shipbuilding industry could express their concerns to the Congressional Committees and Members prior to the formulation and filing of new reauthorization legislation.

Such action would ensure that the concerns of the industry would be known to legislators as they attempt to devise a reauthorization bill that satisfies both environmental and industrial interests.

B. RECOMMENDATIONS

1. The shipbuilding industry should initiate contact with the individuals identified in Tables 1.1 and 1.3 to continue to track the CWA reauthorization process. These individuals can provide the industry with Congressional committee schedules, Congressmen drafting and filing new or revised reauthorization legislation, copies of draft legislation and hearing documents, and updates on related legislation. Related legislation would include hearings and bills submitted that modify specific sections of the CWA, such as water quality standards and criteria, or other environmental laws including the Endangered Species Act, RCRA/SARA, and the Clean Air Act.

2. Utilize the second proactive response document to transmit the concerns and interests of the shipbuilding industry to Congress. Such a submittal could allow for the interests of the industry to be incorporated into new CWA reauthorization legislation.

3. Response documents provided to industry representatives in fulfillment of the requirements of this project should be utilized as reference material for future response documents that may be prepared by individual shipyards or industry groups.

4. The shipbuilding industry should also focus efforts on the agency responsible for implementing and enforcing CWA legislation, the EPA. EPA may propose new regulations in response to Congressional pressure and proposed changes to CWA reauthorization. In particular, the shipbuilders should continue to track Metal Products and Machinery effluent limitation guidance. Also, specific provisions in CWA legislation that would prohibit water quality criteria based on sediments should effectively eliminate EPA regulatory efforts in such areas.

5. State regulatory agencies should be monitored for potential mandates relative to NPDES limits when the State has primacy for such issues. States with primacy may develop and pass effluent limitations that are more stringent than EPA effluent limitations. Such action could make achieving compliance with new limits difficult and expensive. An example of such activity is the implementation of limits for tributyltin by some states. These limits have proven to be costly, difficult to achieve, and may not have a substantial environmental benefit.

6. It is also apparent that efforts should also be focused on the implementation of CWA legislation by State agencies. CWA reauthorization should contain some measures which, as part of NPDES delegation, restrict the enforcement of extensive limits without cost/benefit analysis, etc. Prior to the implementation of

limits on tributyltin, a cost/benefit analysis should have been performed to assess environmental benefit versus cost of compliance.

7. The direct impact of some of the proposed CWA modifications would be dependent on the regulations drafted by EPA or States to meet the modifications, such as stormwater programs and total maximum daily load limits. As regulations are drafted to meet the CWA modifications, shipyards should obtain copies and comment prior to final passage of such regulations.

8. The shipbuilding representatives that participated in the discharge survey should compare their DMR data to response document suggestions. The lack of voluntary submittal of actual DMR data was a hinderance to maximizing project results. The industry should be aware of areas that indicate borderline compliance, which would be demonstrated through DMR data and proposed CWA modifications.

APPENDIX A

LITERATURE SURVEY LIST OF REFERENCES

1. Amdur, John and Dan Schoenholz, 1993. *Storm Water Permitting: A Case Study in Cooperation.* Proceedings of the Eighth Annual Symposium on Coastal and Ocean Management, Volume 3, pp. 2861-2866.

2. Anonymous, 1995. *Illegal Discharges: Bethlehem Pays.* Waste Treatment Technology News, July, Volume 10, Number 9.

3. Bureau of National Affairs, 1992. *Navy sued over toxic discharges into Puget Sound at Bremerton.* BNA Chemical Regulation Daily, December 15, 1992.

4. Bureau of National Affairs, 1995. *Murray v. Bath Iron Works Corporation.* BNA National Environment Daily, February 21, 1995.

5. Federal Register, September 29, 1995. Part IXV, Environmental Protection Agency. Final National Pollutant Discharge Elimination System Storm Water Multi-Sector General Permit for Industrial Activities; Notice.

6. Federal Register, December 12, 1995. Environmental Protection Agency. Request for Comments: Information Collection Request for the 1996 Metal Products and Machinery-Phase II Survey; Agency Information Collection Activities; Notice.

7. Phone Call, March 20, 1996. EPA's Engineering and Analysis Division. Ms. Shawn Campbell, relative the MP&M Guidance.

8. U.S. Department of the Navy David Taylor Research Center, 1992. Environmental Symposium, National Shipbuilding Research Program. NSRP No. 0377.

APPENDIX B

SHIPYARD DISCHARGE SURVEY COPY

SHIPYARD DISCHARGE SURVEY

IMPACT ON SHIPYARDS FROM REAUTHORIZATION OF THE FEDERAL CLEAN WATER ACT

NSRP PROJECT NO. N1-95-01

A. GENERAL INFORMATION

1. Facility Name:_____

2. Facility Address:_____
_____
_____
_____

3. Contact:_____

4. Facility SIC codes:_____, _____, _____, _____, _____

5. Does your state have an active Watershed Management Program?_____

6. Would your facility consider entering into an agreement with another industry within the same watershed to achieve an overall reduction in pollution between the discharges of both industries?_____ If it was profitable to your shipyard?_____

B. PROCESS INFORMATION

Blasting

1. Is Blasting Performed? Yes_____ No_____

2. Type of Shot Utilized_____

3. Blasting Performed Inside____or Outside____

4. Degree of Blasting (in shot produced)
Performed in Dry Docks _____
Graving Docks _____ Marine Railways _____

5. How much of the blasting activities which occur in dry dock, graving dock, and marine railway areas are performed on newly constructed vessels?_____

_____

_____

6. How much of the blasting activities occur during the maintenance and painting of existing vessels?_____

_____

_____

7. Are existing vessels tested for lead-based paint prior to blasting?_____

_____

_____

8. Describe procedures for blasting of vessels containing lead-based paint._____

_____

_____

9. Is blasting of primed or painted surfaces performed?_____

10. Is shot material recycled?_____

11. Disposal method for spent shot_____

Metal Fabrication

12. Types of metals utilized other than steel

Metal	Annual Quantity (approx.)

13. Are metal fabrication areas enclosed?_____, Please describe._____

_____

_____

_____

_____

14. Does your facility operate its own metal foundry?_____

If yes, please describe._____

Painting

15. Describe and indicate the number of storage areas utilized for paints and solvents.

16. Please indicate the quantity of paint stored in each location._____

17. Are the paint and solvent storage areas enclosed or covered?_____

Please describe._____

18. Are the paint and solvent storage areas provided with secondary containment?_ _____, If yes, please describe._____

19. How is stormwater within the secondary containment areas addressed?

20. Are all painting activities performed within enclosed areas?_____, If no, indicate the conditions under which the painting occurs and an estimate of VOC

emissions, if available._____

21. If painting activities occur in enclosed areas, describe the treatment methods for VOC emissions._____

22. Describe methods utilized to address paint and solvent spills._____

Barge Cleaning/Gas Freeing

23. Does your facility provide cleaning of barge or vessel holds?_____

24. If you provide barge cleaning services, please list the products carried by the barges prior to cleaning.

25. Do the barge cleaning operations produce hazardous waste streams, solid waste streams, or wastewaters requiring treatment?, If yes, please describe._____

26. Describe treatment methods for waste streams described in above._____

_____

_____

_____

_____

27. Is a water discharge permit required for the barge cleaning operation?_____
If yes please describe._____

X-ray/Photograph Shop

28. Does your facility operate its own x-ray or photograph shop?_____
If yes, please describe._____

29. Is the silver produced by this facility recovered prior to wastewater discharge?

30. Is the wastewater discharged to a publicly owned treatment works (POTW)?__
Mixed with other wastewaters within the shipyard?_____
Or has its own permitted discharge point?_____
Please describe?_____

C. HAZARDOUS WASTE INFORMATION

1. Describe and indicate the number of hazardous waste storage areas._____

2. Please identify the quantity of waste stored at each location._____

3. Are hazardous waste storage areas enclosed or covered?_____, Please

describe._____

4. Are the hazardous waste storage areas provided with secondary containment?_____, If yes, describe._____

5. How is stormwater within secondary containment areas addressed?_____

D. MAINTENANCE INFORMATION

1. Are washracks utilized to clean heavy equipment, parts and vehicles?_____, Please describe._____

2. How are the discharges from the washracks treated?_____

3. Is the discharge from the washrack discharged to a public sewer system?_____, mixed with stormwater or other wastewaters within the shipyard?_____. Or does the washrack have its own permitted discharge point?_____ Please describe._

4. Do maintenance activities occur in enclosed areas?_____, Please describe._____

5. Please list types of wastes produced from these maintenance activities._____

6. Describe procedures for maintenance of heavy equipment (cranes, etc.)._____

7. How are wastes handled?_____

8. Describe how used batteries are stored and handled._____

E. OTHER PROCESSES

1. Describe other processes which generate wastes requiring treatment and/or disposal._____

F. **PERMITTING INFORMATION**
POINT SOURCE DISCHARGES

1. Is NPDES permitting performed through EPA or your State resource agency?_____

   If EPA, do you have a separate State permit? _____

2. What are your current permit fees?; Federal_____ State_____

3. How many permitted outfalls does your facility have?_____

4. Please list your facilities waste streams._____

5. Please list pollutants generated by processes performed at your facility.

6. Describe discharges and outfall locations (Indicate which discharges are to a POTW)._____

7. Please list pollutants present in your wastewater and their permit limitations for each outfall (attach information from permits as necessary).

8. Does your facility maintain a private wastewater treatment facility?_____ Is it permitted separately?_____, If yes, describe treatment processes utilized for each permitted discharge location and pollutants targeted by treatment processes._____

If not, is an additional permit from the local POTW required?_____

Does the POTW beneficially reuse biosolids (sewage sludge)?_____

Does your facility plan to increase discharges or begin new discharges to this POTW in the near future?_____

Is your facility a major contributor to this POTW?_____

If yes, provide approximate percent contribution of flows._____

9. To your knowledge, are there pollutants present in your discharge that you are not required to monitor or provide treatment for?_____ Please list.

10. Is your facility considered a National Categorical Industry by the POTW?_____ _____, If yes, name the pretreatment category your are regulated under and identify whether the local limits (if established) for the POTW are more stringent than the categorical standards._____
_____
_____
_____

11. Is biomonitoring required?_____, If yes, what are your biomonitoring monitoring requirements?_____
_____
_____
_____

12. If biomonitoring is required, describe the species required for monitoring?_____
_____
_____
_____
_____

Is this species present in the waterbody your facility discharges to?_____

Is the aquatic species, to your knowledge, healthy within the area of your discharge?_____

13. Does your facility have effluent toxicity requirements in addition to biomonitoring?_____ If yes, please list._____
_____
_____
_____
_____

14. If your facility is located on or discharges into one of the Great Lakes, is sediment sampling and analysis in the vicinity of your discharge required?_____ _____

If yes, for what constituents?_____
_____
_____
_____

Is the discharge location in the vicinity of a known area of contaminated sediment?_____

15. Does your facility have maximum daily loading limitations?_____ If yes, please describe._____

16. What waterbody serves as the receiving water for your facilities discharges?__

Does this waterbody meet its designated uses?_____
Does it meet water quality criteria?_____
Is this waterbody course effluent or ephemeral limited?_____
(Effluent dependent means the flow of the water within a given water course is dependent on effluent or stormwater discharges from one or several sources. Ephemeral dependent means that the water course flows during periods of heavy precipitation.)

17. Does your point source discharge contain any water obtained from the waterbody you discharge to?_____

18. Does your facility have re-occurring compliance problems?_____
If yes, please explain (attach DMR's typical of compliance problems)._____

19. Are any discharges from your facility consistently below current discharge limitations?_____
If yes, please describe discharge limits surpassed and typical DMRs for the discharge. (attach as necessary)_____

G. PERMITTING INFORMATION
STORMWATER DISCHARGE CHARACTERIZATION

1. How many existing non-point source discharges does your facility have?_____

2. Do you have a State permit for stormwater discharges?_____

3. Do you have a separate NPDES permit from EPA for stormwater discharges?

4. What type of General Stormwater Permit does your facility have (individual, multi-sector, etc.)?_____

5. Are your stormwater discharge limitations based on fishable and swimmable water quality standards?_____

6. What shipyard processes does stormwater come in contact with?_____

7. Do you sample and/or treat stormwater runoff from the facility?, If yes, please describe._____

8. Has your facility implemented Best Management Practices (BMPs) for the control of pollutants in stormwater?_____, other non-point sources?_____ _____ Please describe._____

9. Are any treatment methods other than BMPs required to treat your stormwater discharge?_____

Please describe._____

10. Are discharges from dry docks, graving yards, and marine railways permitted?

Are control measures or treatment practices other then BMP's required for these discharges? Please describe._____

H. GENERAL TREATMENT PRACTICES

1. Does your facility reuse wastewater?,_____ Recycle waste products?

2. Does(has) your facility utilize(d) Best Available Technology (BAT) in designing treatment systems?_____

3. Is more advanced technology available that would reduce the number of discharge locations for the facility or the amount of specific pollutants in your wastewater?

4. Is obtaining such advanced technology financially feasible?_____

5. Would your facility conduct trials of more advanced treatment system technology if EPA agreed to provide leniency for violations during the system trial?_____

6. Has your facility investigated any pollution prevention practices which were not implemented due to current discharge limitations?_____

   Please describe._____

I. REQUESTED ITEMS

We would like to request the following documents from your facility:

1. Copies of your State wastewater discharge permits.
2. A copy of your Federal (NPDES) discharge permits, if separate.
3. A site plan if available.
4. Copies of DMR's for any noncompliant discharge.
5. Permits required from the local POTW.

APPENDIX C

DISCHARGE SURVEY RESULTS

TABLE 1

SHIPYARD DISCHARGE SURVEY RESULTS

TOPIC	SHIPYARD			
	Shipyard A	Shipyard B	Shipyard C	Shipyard D
Shot	Coal, recycled into concrete/asphalt	Sand, recycled, then landfilled	Steel, slag grit, recycled then landfilled	Garnet, steel, coal slag, AlO2 – recycled then some used with pavement and some landfilled
Metal Fab	No	Steel, area open on two sides	Al, Cu–Ni – fab building enclosed, platten area open	Cu,Ni,Cr,Al,Zn – fab enclosed
Paints/Solvents	Stored with secondary containment, not covered, 1000 gallons Painting in tanks or drydock Wastes in 55 drum for HW pickup	Storage area, slab,covered, 2000 gallons Painting areas not all covered, no paint in rain 2nd Coat, metal, no stormwater – spills contained and pickup for disposal	Main storage, 2 satellite, 2 paint kitchens, warehouse MS – less 1000 gls, S – less 500 gls, PK – less 1000 gls, Wha – less 200 gls Covered, unless in use, secondary containment (except warehouse) Stormwater from storage areas– DAFT unit Painting on drydock, booth, indoor priming, new construction (out) Spill prevention plns and training	Paint warehouse, statics, south dock, maintenance warehouse PW – 20800 gls, S (south dock) – 145 gls, ND – 145 gls, MS – varies Covered in trailers, secondary containment No contact with stormwater Enclosure for painting when feasible (VOCs 1995 – 100 tons) Spill plns (given)
Barge Cleaning				
Xray	Yes – No Ag, treated prior to discharge to POTW	No	Yes, products carried are diesel, CHT, potable water, JP– 5, ballast water Oily wastestream Treatment by Jolbert DAFT system on site/no permit necessary	No
Hazardous Waste	Have Class "B" permit Covered area, Secondary containment Less than 90 drums in storage area Uncontam. stormwater to POTW, other HW	One area, covered, concrete slab w/steel containment 12 drums before pick–up No address stormwater in containment	No 1 storage site at each of 3 divisions in Jacksonville 3 to 6 55 drums/mo of liquid paint and paint waste All covered, with secondary containment	Yes, automated developing machines for x–rays, photos by hand Ag removed prior to discharge to POTW/Ag recovery unit then mixed with other streams 1 90 day central site – 2: 55 gls drums, 4 90 day accumulation areas up to 4 55gls 2 satellite areas, no more than 55 gls, 2 satellite areas, no more than 15 gls Completely enclosed with secondary containment Not exposed to stormwater
Maintenance	No	Degreate oil,batteries Offsite disposal of batteries, clean oil recycled, other offsite	Washracks used, have special washpad/drainage system for collection of wastewater Water is treated by DAFT Wastes include oily rags, oil, antifreeze, grease, hydraulic fluid Disposed as non–haz or recycled, batteries collected/recycled	Washrack, collection in sump, pumped to oil/water separator prior to discharge to sewer Small vehicles are indoors, equipment in washrack area Wastes include oil, filters, batteries Labelled, sent to 90 day storage
Permits	State has authority, $3500 "12 discharge points	State and Federal 4 discharge points	State, individual NPDES, $1000 14 discharge points Have private WWTP	State, $2000 and Federal $0 2 NPDES discharges, additional intermittent discharges (7) Monitor for Cr,Cu,Cu,Pb,Ag,Zn,Cy, Local POTW sets O&G,pH but no permits necessary Also check for heat, pH and flow to river POTW reuses biosolids in land application Portland facility needs local POTW
Stormwater	State permit, individual For paint and blasting area	State, Individual (For paint/blasting and maintenance area)Paint,solvents, oil&grease, rinse water Sample for O&G – 15mg/l , COD – 100 mg/l, pH –6–9	State, NPDES Based on Class III surface water quality standards Contacts blasting, painting, metal fab Sample as required by permit	State doesn't regulate, NPDES Was under baseline general, applied under multi–sector Contacts welding, brazing, sanding, grinding, flame straightening, materials No limitations, 2 samples under baseline general pr
Wastes	Waste generated at pier, drydock, noncontact cooling	Paint, spent sand, welding consumables	Steel, Al, Cu/Ni, stainless, galv. brass, electrical wire – recycle these Dispose of florescent light bulbs (Hg recycler), rest disposal	Ship system flushes with solution, disposed of by contractor Metal shapes, piping, plastic, blast grit, light bulbs – recycle as possible
Biomonitoring	Yes	No	No	No
Beneficial reuse	POTW beneficial reuse of biosolids No reuse at facility, other than shot	No discharge other than stormwater Partial recycling of sand blasting material	Yes, solvent, steelblast, grit, cardboard, metals	Yes, metals, grit, cardboard
Compliance problems	No	no	No – report copper and zinc (no limits)	No – One division had Zn problem at POTW, solved by cleanout of old sewer line
BAT use	No BAT in use, not interested in new technology	Not available, willing to try	Always, more advance tech. exists, not feasible to obtain, willing to try	Yes, for treatment systems – generally cheaper to contract than obtain the technology Always willing to try, not fear of violations, cost prohibitive
BMPs	No pollution prevention in place that is not required	No	Yes	Yes, for drydock, stormwater also implemented oil/water sep too on own
Have permit copy?	yes, State VPDES yes, Local	Yes, State stormwater (LWDPS)	Yes, State NPDES	Yes, Federal + plans
Voluntary PR	Willing to work with other shipyds for pollution reduction	Willing to work with other shipyds for pollution reduction	Willing to work with other shipyds for pollution reduction	No response
Watershed program	Yes	Yes	Yes	Yes

TABLE 1

SHIPYARD DISCHARGE SURVEY RESULTS

(CONTINUED)

TOPIC	SHIPYARD			
	Shipyard E	Shipyard F	Shipyard G	Shipyard H
Shot	Cu slag, recycled in cement kiln	Glass, no response to recycling or disposal	Coal slag, garnet, steel – steel recycled, others not	Steel, recycled
Metal Fab	Steel, sheet metal and pipe shop enclosed, others outdoors	Al, enclosed building bays with heat and ventilation	Cu, Al, Cu/Ni – some enclosed, assembly in open areas	None
Paints/Solvents	1 main paint storage and several satellite areas Main storage – several thousand gallons, approx. one hundred in satellite Not covered, Secondary containment Stormwater is pumped through facility WWT Paint in temp enclosures and one enclosed area with a thermal O2 unit Spill plan	1 paint vault building per code, enclosed Stores of 3 to 4000 gallons Secondary containment, enclosed, thus no stormwater contact – no flooding Spills treat with Floor Dri, containerized, shipped for fuel blend	1 paint warehouse (construction paint), 4 major warehouses with solvent and paint for facility Have a paint and solvent waste storage area and satellite paint areas All areas have secondary containment and roofs 4 warehouses store a few hundred gallons, Paint warehouse has several thousand gallons Waste storage holds less than 55 gallons and satellite areas as much as 200 gallons Stormwater is pumped into drums for disposal with waste paint Painting is in and out of doors – outdoor painting follows BMPs There is an onsite spill response team, a spill plan, contracts with spill response organizations	1 paint building and 1 storage area Building is completely enclosed, storage area has roof with no secondary containment Building stores 3300 gallons, storage area has 10,000 gallons of space, usually storing much less (3000) All painting is in enclosed areas, stormwater is not addressed Have an SPCC plan
Barge Cleaning	No	No	Yes – barges carry petroleum products, edible products, inorganic substances, and chemicals Wastewaters from cleaning are treated at the facility A permit is required for discharges (pH,COD,O&G,TSS,Phenols,BETX,purgable halocarbons)	No
Xray	Yes, NDT and label plate shop Ag removed prior mixing with other streams and discharge to POTW	No	Yes, medical, metal, photographic, and metal imprinting All locations have Ag recovery units	No
Hazardous Waste	One main storage, several satellite Some covered and enclosed area, all Secondary containment Main area stores several tons solid/liquid, satellite have 1 or 2 drums Pumped and transported to WWT	One area, concrete building with metal roof 250 gallons maximum storage No water in containment, which is steel sided	One 90 day storage area that is covered and on concrete with secondary containment Every 4 to 6 weeks area has 50+ 55 gallon drums of waste paint and acetone Water contacting area collects in sump and disposed as required	One waste accumulation area and one satellite area 660 gallons maximum in accumulation area and 55 gallons in satellite area Both are indoors with secondary containment No stormwater contact occurs
Maintenance	1 steam cleaning area outside, some maintenance inside Maintenance shop Wastewater collects in holding tank and is transported to WWT Waste includes oil, rags, grease, absorbents Drummed, labelled, to storage area for pick – up, batteries picked – up	No on site maintenance outside Indoors: vehicles, overhauls, steam clean etc. generating oil, filters, antifreeze Wastehauler removes wastewater from cleaning ops Batteries traded in for new ones	One washrack for yard vehicles, heavy lifting equipment, portable restrooms and boilers, machinery Equipped with catch basin, solids are collected, dried, and disposed offsite Water from basin is pumped to oil/water separator Oil is mixed with waste oil and sold for recycling Other maintenance waste includes oil, grease, rags, degreaser, welding rod butts, wire covering, wire spool All wastes are disposed offsite, oil materials are recycled, degreasers go to gas free plant	One maintenance shed for vehicles Waste oil generated and properly disposed, batteries returned to vendors
Permits	State has authority, $2000 Discharge point not in permit, only stormwater discharge allowed Have onsite WWT meeting metal finishing limits (permitted separately) WWT has oil/water separation and metal precipitation NPDES requires sediments sampling Sediments are contaminated but waterbody meets state criteria and uses	Only State stormwater No limits, no discharges Eventual discharge to large body of water No contaminated soils in area, but sample sediments (constituents not determined) No POTW involved	Federal and State ($29,044) Five permitted outfalls, plus four at gas free plant Have onsite wastewater treatment facility permitted separately: Gravity separation, activated sludge, carbon absorption filtration Effluent discharge limits are established	State ($1500) Two permitted outfalls Have onsite wastewater treatment with trickling filter/mixed media Sludge is land applied by contract hauler Limits include flow, BOD, settleable solids, pH, color, O&G
Stormwater	State NPDES, general stormwater permit For drydock, graving dock, paint areas Sample and collect the first flush for WWT	State, Individual Stormwater does not contact any processes Sampling is required, none performed, no listed constituents	Federal and State, Individual Stormwater contacts blasting, painting, oil, degreasing, vehicle servicing, air conditioner cleaning Stormwater is sampled weekly for: Cr, Cu, Pb, Tin, Cd, Zn, O&G, pH, flow, COD, TOC	State, Individual Sampling is required, frequency not stated
Wastes	Waste drydock, graving dock, electroplating, caustic/acid cleaning, vessel hull cleaning (barnacles), printing, and sludge from WWT	None listed, assume paint waste, glass, maintenance Wastes from maintenance activities taken by wastehauler	Stormwater, sanitary wastewater, washwater, blast water, cooling water, tank/line disinfecting water, hydrotest water, bilge water, water – based paint wastewater, photodeveloping water, metalwork wastewater, ballast water, fire fighting foam, caustics, acid, glue (insulation), maintenance waste	Paint materials, waste primer, waste flux, waste shot, waste oil Oil is recycled and batteries are returned
Biomonitoring	No	No	No	No
Beneficial reuse	No	Claims some, no listing provided	Yes, recycling of waste products	Recycling of waste oil
Compliance problems	No, no limits in permit, only stormwater general	No	No, discharges consistently below limits	No
BAT use	Would obtain BAT if resulted in cost savings Willing to try new technology	Not in use, no indication of willingness to try	Not in use, would try if benefits outweigh costs	Yes, willing to try advanced technology if feasible
BMPs	Yes, stormwater, pollution prevention in first flush treatment	Yes, flushing procedures for piping system, control oil drips	Yes, at floating drydock, marine railway, launch ways	For production materials
Have permit copy?	No	No	Yes	No
Voluntary PR	No response	No response	No	No
Watershed program	Yes	No	No	No

TABLE 2
PERMITS FOR SHIPYARD DISCHARGES

Shipyard	Type of Permit	Pollution Control Requirements	Monitoring Requirements	Compliance/Reporting Requirements
Shipyard 1	NPDES	Develop and implement a BMPP Objectives: Keep debris/debris away from cooling, hydrostatic test, wash, ballast water Separation of uncontaminated wastes from contamination sources, bilge, or waste, etc... Prevent release of foam Proper training of employees Prevent release of unpermitted wastewater Compliance with temperature requirements Modify BMP plan for changes or new discharge within 90 days, permit prior to any discharge If follow BMPs, the following can be discharged: Condensate from steam heaters, cooling water from flame straightening, uncontaminated hydrostatic test water, city water used for "fire test", hydrostatic test for new tanks for ships, city water from mud removal, boiling water reservior draining	For noncontact cooling water and other discharges: Flow, pH, Temperature Report highest daily max and monthly avg temp. and flow estimates each quarter No oil sheen, foam, or floating solids No materials that are hazardous or toxic to aquatic life No discoloration of receiving waters Effluent must not lower the current classification of receiving water No chlorophenolic containing biocides SARA Title III toxics (monthly): Nickel (stainless steel, inconel, cu/ni, zi/cu) Chromium (corrosion resistant steel, stainless steel, inconel) Copper (cu/ni and copper material)	Notification of intent to discharge a toxic pollutant (specific levels given) Summarize results on DMR, monthly (of monitoring)
Shipyard 2	State	Implement a Stormwater Pollution Prevention Plan (SWPPP): 1. Source Area Control BMPs 2. Identify residual pollutants 3. Stormwater treatment BMPs 4. Facility monitoring plan	Residual pollutants: Categorical limit or pretreatment limit SARA Title III, 313 Water Priority Chemical Toxics in sanitary containing pump or storm water O&G, pH, BOD (5day), COD Annual compliance inspection: Site drainage, pollution conditions unchanged SWPPP implemented, proper operation, maintained Quarterly visual monitoring within first 30 minutes of discharge Color, odor, turbidity, foam, sheen, floating solids, other Annual chemical monitoring between March and November, >.1", 72 hours after event	SWPPP in accordance with Administrative Code SWPPP at facility and available on request All submitted prior to construction, unless operating prior to 1990 Keep current to prevent deficiencies Submitting monitoring results annually Keep records for 3 years
Shipyard 3	State (NPDES)	BMPs in place for management of pollution prevention 30 separate practices are noted Waste oil storage containers will not be filled to capacity, when done: remove to permanent storage, pump out, remove from pier TMP with: Flow monitoring requirements (annual) sampling requirements Toxicity reduction evaluation Reporting schedule Stormwater management Stormwater pollution prevention plan Pollution prevention team Describe sources of potential pollution Inventory of exposed materials Spill/Leak identification Risk identification Control measures including: good housekeeping, preventive maintenance, spill prevention/response, inspections, employee training, sediment/erosion control, runoff mgt., internal reporting Comprehensive site compliance evaluation	For piers, moorings, vessels: Follow BMP plan in permit – only discharge of uncontaminated (or treated) bilge or ballast For noncontact cooling water: Estimate flow 1/mo, pH 1/mo, Temp max of 43 TOC, dissolved Cu, dissolved Zn – no limit, sample 1/6 mo Stormwater associated with regulated industrial discharge: Estimate flow, take pH 1/3 mo Temp, TOC, TSS, O&G, dissolved Cu – no limit, sample 1/3 mo Dissolved Pb, Ni, Zn – no limit, sample 1/6 mo Stormwater associated with regulated industrial discharge: Estimate flow 1/year pH, COD, TSS, O&G, dissolved Cu,Pb,Ni,Zn – no limit, sample 1/year For floating drydocks (2) Estimate flow, take pH 1/3 mo O&G, COD, TSS, NH3–N, dissolved Cu,Zn,Pb,Ni,Ag – no limit, 1/3 mo Tributyltin max of .05 ug/l at 1/year 4 outfalls require water quality monitoring in excess of above (quarterly): Metals, pesticide/pcbs, base neutrals, volatiles, acids, (NH3–N, residual Cl, Cyanide, Dioxin, 303, hardness, TBT, Xylenes)	Compliance with tributyltin within 4 years of permit issuance Reporting monthly on forms and with DMRs for compliance with 30 BMPs Tributyltin (TBT) (paint/coating) use or removal must notify Tidewater regional office If decide to treat noncontact or boiler system water with chemicals (not on file) must acquire approval from DEQ/Tidewater office EPCRA/SARA 313 reporting Maintain records for 3 years Reporting of unusual incident, unusual or extraordinary discharges

TABLE 2
PERMITS FOR SHIPYARD DISCHARGES
(Continued)

Shipyard	Type of Permit	Pollution Control Requirements	Monitoring Requirements	Compliance/Reporting Requirements
Shipyard 4	State (NPDES)	BMPs in place for management of pollution prevention 30 separate practices are noted Waste oil storage containers will not be filled to capacity, when close: remove to permanent storage, pump out, remove from pier TMP with: Biomonitoring requirements (annual) Sampling requirements Toxicity reduction evaluation Stormwater pollution prevention plan Pollution prevention team Describe sources of potential pollution Inventory of exposed materials Spill/Leak identification Risk identification Control measures including: good housekeeping, preventive maintenance, spill prevent/response, inspections, employee training, sediment/erosion control, runoff mgt., internal reporting Comprehensive site compliance evaluation	For piers, moorings, wetslips Follow BMP plan in permit -- only discharge of uncontaminated (or treated) bilge or ballast For noncontact cooling water: Estimate flow 1/mo, pH 1/mo, Temp max of 43 For contaminated stormwater runoff, industrial discharge: Estimate flow 1/3 mo, take pH 1/3 mo COD, TSS, O&G, dissolved Cu, Zn -- no limit, sample 1/3 mo For contaminated stormwater runoff, industrial discharge: Estimate flow 1/3 mo, take pH 1/3 mo COD, TSS, O&G, NH3--N -- no limit, sample 1/3 mo For floating drydocks Estimate flow, take pH 1/3 mo O&G, COD, TSS, NH3--N, dissolved Cu,Zn,Pb,Ni,Ag -- no limit, 1/3 mo Total xylenes -- no limit at 1/6 mo Tributyltin -- no limit at 1/year 3 outfalls require water quality monitoring in excess of above (quarterly): Metals, pesticides/pcbs, base neutrals, volatiles, acids,	Compliance with tributyltin within 4 years of permit issuance Reporting monthly on forms and with DMRs for compliance with 30 BMPs Tributyltin (TBT) (paint/coating)use or removal must notify Tidewater regional office If decide to treat noncontact or boiler system water with chemicals (not on file) must acquire approval from DEQ/Tidewater office EPCRA/SARA 313 reporting Maintain records for 3 years Reporting of unauthorized, unusual or extraordinary discharges
Shipyard 5	State (NPDES) Expired	TMP with: Biomonitoring requirements (annual) Chemical monitoring requirements Sampling requirements Toxicity reduction evaluation BMPs in place for management of pollution prevention 33 separate practices are noted	For noncontact cooling water: Measure flow 1/week, Temp max of 43C 1/week Total P at mo avg of 32 lb/d 1/mo, Total N -- no limit 1/mo For noncontact cooling water: Measure flow 1/3 mo, Temp max of 43C 1/3 mo For steam condensate and hydraulic equipment cooling water: Measure flow 1/week, Temp max of 43C 1/week Total P at mo avg of 30 lb/d 1/mo, Total N -- no limit 1/mo For 1 and 2 drydocks: Measure flow 1/mo -- no limit TSS, Cr, Zn, Tn, Ni, N -- no limit 1/mo Cu of 490 ug/l, Pb of 335 ug/l, P at mo avg of 32 lbs/d -- 1/mo TBT, O&G, soluble Zn, soluble Tn -- no limit 1/mo For dewatering of 1 and 2 drydocks: Estimate flow, no limit on N, P at mo avg 42 lbs/d all at 1/mo For 3 and 4 drydocks: Measure flow 1/mo -- no limit TSS, Cr, Zn, Tn, Ni, -- no limit 1/mo Cu of 490 ug/l, Pb of 335 ug/l -- 1/mo TBT, O&G, soluble Zn, soluble Tn -- no limit 1/mo For Shipways 10 and 11: Measure flow 1/mo -- no limit TSS, Cr, Zn, Tn, Ni, N -- no limit 1/mo Cu of 490 ug/l, Pb of 335 ug/l, P at mo avg of 17 lbs/d -- 1/mo TBT, O&G, soluble Zn, soluble Tn -- no limit 1/mo Dewatering for these -- flow, P at 117 lbs/d, N at 1/mo For Shipway 12 Measure flow 1/mo -- no limit TSS, Cr, Zn, Tn, Ni, N -- no limit 1/mo Cu of 490 ug/l, Pb of 335 ug/l, P at mo avg of 30 lbs/d -- 1/mo TBT, O&G, soluble Zn, soluble Tn -- no limit 1/mo Dewatering for this -- flow, P at 67 lbs/d, N at 1/mo 7 outfalls require water quality monitoring in excess of above: Priority pollutant sampling and nonpriority extractable and organic volatiles	Notification of use of algaecides Compliance with Total P within 30 days of completion of facility for treatment 3 years of records retention

TABLE 2
PERMITS FOR SHIPYARD DISCHARGES
(CONTINUED)

Shipyard	Type of Permit	Pollution Control Requirements	Monitoring Requirements	Compliance/Reporting Requirements
Shipyard 6	State (NPDES) For Treatment plant and for stormwater	Stormwater Pollution Prevention Plan with BMPs Plan will: Be written with plans, maps, schematics, drainage, pollution sources Control objectives – potential to cause release, expectation of how much, housekeeping, preventative maintenance, SPCC, employee training BMPs in plan to meet above objectives	From treatment plant: Flow at .06 mm avg – daily, Carb BOD mo avg 25 and week avg 40 – 2weeks TSS mo avg 30 and week avg 45 – 2weeks, Fecal 200 per 100ml per mo pH, TRC (dechlor) at .5, daily, TRC (dechlor) at .01 and report DO at 2weeks At influent surge splitter box – Carb BOD and TSS no limits, 2weeks For stormwater: Report – total recoverable metals, pH, TSS, COD, O&G semiannually Report flow for all rainfall events resulting in a discharge Biomonitoring required if sampling indicates exceedance of wqs Residuals management – tests as Class B (must continue sampling/testing), uses land application method Residuals from pretreatment unit are sent to Class I landfill or incineration	Capacity analysis reports for wastewater treatment facility Staff for plant as per regs Record keeping for 3 years, semiannual review of pretreatment unit data Prohibition of mixing stormwater with wastewater Reporting of overflow, new intro of pollutants, volume of pollutant Modify Stormwater Pollution Prevention Plan if proves to be inadequate or changes occur
Shipyard 7	State (NPDES)	BMPs: No dilution water, prepare and implement SPCC plan BMPP for containment of liquids/solids not likely to be discharged BMPP: Sediment control, Spill control, Control of dust, abrasives and overspray Minimize stormwater contact with washdowns and other pollutants Name responsible party for BMP implementation, Provide for inspection of structures Disposal areas for trash, Secondary containment structures, Diagram of facility, Routine maintenance/cleaning of drydock, Proper waste disposal, Solvent mgt. program	For bilge/ballast water, washwater from cleaning of dock, vessel decks work floats and pressure wash of vessel hulls, and hydrostatic test water: Use BMP – portable oil skimmer or absorbant material to remove oil/grease and remove debris with shovels, brooms, trash receptacles, etc. before hose If these waters contacted product, waste or waste residual – no discharge Only biodegradable phosphate free cleaners Pressure washing can remove marine growth from vessels – below 3500 psi, no chipping paint No sheen, floating solids, visible foam or oil For uncontaminated stormwater from 2ary containment: SPCC plan, BMP as stated above, keep monitoring records No sheen, floating solids, visible foam or oil Stormwater assoc. with shipbuilding an repair, vehicle parking/maintenance: TSS of 15 at 1/3 mo Monitor 1/3 mo for – pH,O&G,COD,total recoverable Zn,Al,Cu,Pb, BETX, Napthalene, TOC, Fe, Mn, Ta, N, Total volatiles No sheen, floating solids, visible foam or oil	Keep records for 3 years Noncompliance notification requirements Chemical additives to cooling and boiler water notification Take stormwater samples if event is greater than .1 inches
Shipyard 8	State Stormwater		Stormwater: Report flow l/mo, COD of 100mg/l, pH and O&G at 15mg/l at 1/mo No visible floating solids or foam	

TABLE 2
PERMITS FOR SHIPYARD DISCHARGES
(Continued)

Shipyard	Type of Permit	Pollution Control Requirements	Monitoring Requirements	Compliance/Reporting Requirements
Shipyard 9	State (NO FEDERAL)	SPCC plan on site and in use Update plan as per administrative code	For treated sanitary wastewater: Report flow at 1/week, pH at 1/mo BOD at 45daily max, TSS at 45 daily max, Fecal/100ml at 400 daily max, all at 1/mo For stormwater, zeropoint: COD of 100, O&G of 15 for any event	Submission of DMRs quarterly Maintain records for 3 years Minimize and/or correct adverse impacts on environment Report all facility changes, including use of new chemicals Reporting of unauthorized, unusual or extraordinary discharges All by-products of treatment (sludge, solids, backwash, etc.) removed and proper disposal
Shipyard 10	State (NPDES) (EXPIRED) (No draft anticipated)	BMPs under Section 7 for: floating drydock, shipbuilding drydock, sanitary waste, work areas, catch barge, storm drains SPCP for liquid pollutants (paints, oil, fuel, sewage) Prohibitions established by Basin Plan No taste or odor producing substances that affect fish flesh or other edible aquatics No radionuclides that bioaccumulate or adversely impact human, plant, animal or aquatics No discharge of toxic substances in deleterious concentrations or pesticides	For all discharges including hydrostatic wastewater, stormwater, stormwater contacting products (paint, rust, refuse, spent steel abrasive, petrol products), ballast, sanitary wastewater: Following BMP plan, no floating solids, no settleable material that impacts benthos, no toxic discharges, no discharges that cause discoloration of receiving water, no excessive TSS that increases turbidity, pH limits Receiving water limits: No coloration, No solids, foams, liquids, scum, No TSS that causes nuisance No oils, greases, waxes, no discharge that may affect beneficial uses, Free of turbidity/suspended sediments that may affect beneficial uses Toxic discharges limits established for: As, Cu, Cr IV, Co, Pb, Hg, Ni, Ag, Zn, Cyanide, Total Cl residual, NH3N, Nonchlorinated phenols, Chlorinated phenols, Aldrin and Deldrin, Chlordane and related compounds, DDT and derivatives, Edrin, HCH, PCBs, Toxaphene, Radioactivity (HCH being hexachlorocyclohexane and its alpha, beta, gamma and delta isomers) All of the above is to be done monthly Semiannual collection and analysis of surficial sediment samples Analyze for: Indicators: trace metals, TBT, Full analyze: TBT, trace metals, TPH, PCBs/PCTs, PAHs, Paint chip analysis Annual completion of Chemical Utilization Audit Form	Reporting of unauthorized, unusual or extraordinary discharges Reporting of physical changes to facility, increased flow, change in disposal method or location process alteration increasing or introducing new pollutant Maintain records for 3 years Quarterly submission of monitoring info (hardcopy and floppy) Quarterly submission of waste hauling info 48 hour notification prior to flooding the floating drydock
Shipyard 11	State (NPDES) (EXPIRED) (No Draft Anticipated)	BMPs under Section 9 for: Demolition and Construction activities associated with major modifications to facility including 2 concrete piers, new marginal wharfs, new quaywalls, new drydock, shipyard buildings, sandblasting facility and shop, removal of 3 wooden piers, old drydock Also for Mariner railways, drydock, piers, transfer platforms, and open work areas SPCP for liquid pollutants (paints, oil, fuel, sewage) Prohibitions established by Basin Plan No taste or odor producing substances that affect fish flesh or other edible aquatics No radionuclides that bioaccumulate or adversely impact human, plant, animal or aquatics No discharge of toxic substances in deleterious concentrations or pesticides	For all discharges including hydrostatic wastewater, stormwater, stormwater contacting products (paint, marine fouling organisms, rust, refuse, spent steel abrasive, petrol products), ballast, sanitary wastewater, washwater: Following BMP plan, no floating solids, no settleable material that impacts benthos, no toxic discharges, no discharges that cause discoloration of receiving water, no excessive TSS that increases turbidity, pH limits Receiving water limits: No coloration, No solids, foams, liquids, scum, No TSS that causes nuisance No oils, greases, waxes, no discharge that may affect beneficial uses, Free of turbidity/suspended sediments that may affect beneficial uses, DO levels should not drop below 7ppm more than 10% of the time, pH 7 to 8.5, Water can not contain bioaccumulatory substances in excess All of the above is to be done monthly Semiannual collection and analysis of surficial sediment samples Analyze for: Indicators: trace metals, TBT, Full analyze: TBT, trace metals, TPH, PCBs/PCTs, PAHs, Paint chip analysis Annual completion of Chemical Utilization Audit Form	Reporting of unauthorized, unusual or extraordinary discharges Reporting of physical changes to facility, increased flow, change in disposal method or location process alteration increasing or introducing new pollutant Maintain records for 3 years Quarterly submission of monitoring info (hardcopy and floppy) Quarterly submission of waste hauling info 48 hour notification prior to flooding the floating drydock

APPENDIX D

RESPONSE DOCUMENTS

RESPONSE DOCUMENT NUMBER 1

Honorable John Chafee
U. S. Senate
Room SD-410
Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Chafee,

_____ shipyard has reviewed the current Clean Water Act Reauthorization Bill, H.R. 961, and is aware of your efforts to compose a new reauthorization bill. _____ urges the following items continue to be considered in the reauthorization process.

1. Pollution Prevention (Section 302) - As per H.R. 961, _____ would support the extension of compliance deadlines for effluent limitation and pretreatment requirements to encourage the use of innovative pollution prevention technologies, processes or recycling methods or as a result of the use of such technologies. However, implementation of mandatory requirements would be opposed since many shipyards have pursued voluntary pollution prevention controls in order to improve discharge wastewater and stormwater quality. These voluntary efforts were implemented to defer the potential for increased future efforts to cost in excess of the water quality benefit derived. Pollution prevention should continue to be voluntary in order to provide flexibility to shipyards in meeting regulatory requirements. _____ would also support preventing EPA from requiring states to perform anti-degradation reviews in the case of increased discharges from pollution reduction and prevention programs, the use of innovative technologies, an increase in one outfall from a reduction in another, new pollutants identified due to improved monitoring methods, and pollutant concentration increases due to decreases in water flow.

2. Biomonitoring (Section 304) - _____ would support the use of aquatic species indigenous to or those that are representative of waters concerned for biomonitoring requirements for wastewater discharge impacts and the termination of biomonitoring if the permittee can show a balanced and healthy population of aquatic species lives in the water affected by the discharge. Several shipyards discharge to unpolluted water bodies which could not support the aquatic species specified by the EPA biomonitoring procedures, thus making this modification beneficial to those facilities as well as all others. In addition, some species utilized by EPA biomonitoring procedures may have a lower tolerance for specific pollutants than indigenous species.

3. Total Maximum Daily Loads (TMDL) (Section 306) - _____ would be opposed to the establishment of TMDLs by states. It is proposed that states be authorized to determine if the development of a TMDL would be

necessary to achieve reasonable progress towards attainment/maintenance of water quality standards and it allows states to consider load reductions. New load limits could be nonattainable based on current production practices. This may be especially true for stormwater discharges since the fabrication of large vessels requires much of the production process to occur outdoors. It may be economically infeasible to implement controls to meet the potential load reductions. Cost/benefit requirements should be used when establishing new standards and to assure that the standards are "reasonable" before TMDLs are considered.

4. Toxic Pollutants (Section 310) - _____ may not be opposed to EPA considering and studying the following when promulgating effluent standards or prohibitions for toxic chemicals: pollutant's persistence, toxicity, degradability and bioaccumulation potential; magnitude and risk of exposure to pollutant; relative contribution of point source discharges of the pollutant to overall risk from the pollutant; availability of, costs associated with, and risk posed by substitute chemicals or processes or the availability of treatment processes or control technology; beneficial and adverse social and economic effects of the effluent standard, including impact on energy sources; extent to which control may be achieved under other regulatory authorities; and impact on national security interests. The costs associated with developing effluent standards or prohibitions of toxic chemicals should be considered and arbitrary reduction limits should not be imposed.

5. Pretreatment Requirements (Section 311, 312) - _____ supports the modification that would allow POTWs to apply local pretreatment limits in lieu of national pretreatment categorical limits. This should allow the POTWs greater flexibility in applying standards which should met the needs of the POTW and assure unnecessary pretreatment methods are not employed by industries impacted by the POTW's standards. However, an appeal process should be allowed for the impacted industries to the State or EPA in case of overzealous standards prepared by POTWs. In addition, the shipbuilding industry supports the ability to comply with a code of management practices (for up to five years) for silver discharges in lieu of compliance with pretreatment standards based on a water quality standard for silver. Utilizing management practices is a more flexible method of meeting water quality standards and may ultimately prove to be just as effective as a limit, thus eliminating the need for implementing a pretreatment limit. Many shipyards have demonstrated effective management of processes utilizing silver without a specific pretreatment standard.

6. Oil or Hazardous Substances Response Plans (Section 314) - The industry would support exempting the storage of "de minimus" quantities from the facility response planning requirements.

7. State Watershed Management Programs (Section 321) - _____ would support a pollution reduction credits trading program with the potential for

federal grant assistance. This provides the industry greater latitude in implementing future control technologies and pollution prevention measures.

8. Stormwater and Nonpoint Management Programs (Section 322, 319) - Modifications to Section 322 repeal the existing Municipal and Industrial Stormwater Discharge Program in favor of a state developed stormwater management program. Existing permits would remain in place until a new program is enacted and individual states would have the authority to impose effluent limitations on stormwater discharges. The shipbuilding industry is not in favor of all of the modifications. The current program allows shipyards to be covered under the multisector general permit of September 29, 1995, which requires only visual observation of stormwater run-off. Some shipyards are currently required to sample stormwater run-off through individual permits. Regardless of which situation currently exists at any given shipbuilding facility, the potential exists for state stormwater management programs to increase the pollution control measures currently utilized by shipyards and for increased costs associated with the sampling and monitoring of stormwater discharges. Best Management Practices (BMPs) already in place at most shipyards are the best method of dealing with their stormwater discharges. The large land areas encompassed by most shipyards make it difficult and costly to minimize stormwater outfalls and provide treatment for the outfalls.

   In addition, the industry does not support a regulatory program for nonpoint source management. Voluntary management practices and measures to reduce pollutant loadings may not be opposed and are likely occurring at those shipyards utilizing BMPs. There is a fine line between nonpoint and stormwater pollution that results in duplicating efforts and increase costs to permittees if one formulates programs to manage each separately. Consideration should be given to combining the nonpoint and stormwater management programs to form one voluntary or incentive based program for both types of discharges.

9. Cost/Benefit Criteria (Section 324) - _____ supports holding EPA accountable for a reasonable cost/benefit relationship prior to establishing water quality standards and that the state review of such standards would have to consider the costs of compliance. Our industry also supports the ability for states to modify the designated uses of water bodies, which is not currently permittable. In addition, the industry is in support of prohibiting EPA from eliminating the use of mixing zones, since mixing zones provide flexibility and economy in meeting water quality standards. The shipbuilding industry would support the modification that "Prior to issuing any standard, effluent limitation, water quality criterion, water based requirement or other regulatory requirement or any guidance which results in annual costs of $25 million or more, EPA and the Army must show substantial evidence that they maximize net benefits".

10. Permit Reform (Section 402) - The industry supports revising permit renewal action from 5 years to 10 years. In terms of quantification levels, EPA would

have to be able to establish quantification levels based on the lowest level at which a pollutant can reliably be quantified on an interlaboratory basis within one year of passage of H.R. 961. Industry supports this provision since no violation would occur when permit limits set below this quantification limit are exceeded. Attempts to establish and enforce permit limits below a quantification level would be unreasonable. Limits based on quantification levels would be supported and can be defended.

RESPONSE DOCUMENT NUMBER 2

Honorable John Chafee
U. S. Senate
Room SD-410
Dirksen Senate Office Building, Washington, DC 20510

Dear Senator Chafee,

_____ shipyard has reviewed previous Clean Water Act Reauthorization bills, such as H.R. 961, and is aware that new reauthorization legislation will be prepared or the resurrection of previously submitted legislation must be enacted by either House in the 105th Congress in order to restart the process. We request the following items be considered in the drafting of new reauthorization legislation.

1. Voluntary Pollution Prevention. Many shipyards have pursued voluntary pollution prevention controls in order to improve discharge wastewater and stormwater quality beyond permit requirements. Pollution prevention should continue to be voluntary in order to provide flexibility to shipyards in meeting regulatory requirements.

2. Cost Benefit Criteria and Risk Assessment. The shipbuilding industry strongly supports holding Federal (EPA/USACE) and State resource agencies accountable for reasonable cost benefit analysis and the performance of risk based assessments when considering the development of: Total Maximum Daily Loads (TMDL), new water quality criteria or standards, new effluent criteria, and any new regulatory requirement or guidance. Such agencies should be required to demonstrate substantial evidence that the establishment of such new standards, criteria, or regulatory requirements maximize net environmental benefits. In addition to new standards, existing standards and effluent limits should be subject to cost/benefit analysis if the affected industry can document difficulty in achieving and maintaining compliance. One sample parameter that should be subjected to such study is tributyltin (TBT). Some states have set limits on this material that are difficult to achieve. The industry might not object strongly to such limits if proof of substantial environmental benefit could be demonstrated that outweighed the costs of compliance and risk assessment demonstrated reasonable concerns for discharges in excess of established limits.

3. Pollution Reduction Credits. The industry supports a pollution reduction credits trading program where federal grant assistance may be available. Such action would provide our industry greater latitude in implementing future pollution control technologies and pollution prevention measures.

4. Exclusion of Sediment-based Criteria. Development of sediment based effluent criteria should not be included under the CWA. Regulations regarding sediment contamination prevention and clean-up should be restricted to currently existing

legislation, RCRA and CERCLA.

5. Biomonitoring Utilizing Indigenous Species. Our industry supports utilizing aquatic species indigenous to waters concerned for biomonitoring requirements for wastewater discharge impacts rather than those specified in EPA biomonitoring procedures. Some shipyards discharge to unpolluted water bodies which could not support the aquatic species specified by the EPA biomonitoring procedures. Additionally, some species utilized by EPA biomonitoring procedures may have a lower tolerance for specific pollutants than indigenous species.

6. Pretreatment. Prior to the consideration of new or revised pretreatment limits, industry should be allowed to implement specific management practices to meet such proposed new limits. Utilizing management practices is a more flexible method of meeting water quality standards and may ultimately prove to be just as effective as a limit, thus eliminating the need for implementing a pretreatment limit. Many shipyards demonstrate effective management of processes, such as utilizing silver without a specific pretreatment standard, which prevent water quality degradation.

7. Combined Stormwater/Nonpoint Management. Consideration should be given to combining the nonpoint and stormwater management programs to form one voluntary or incentive based program for both types of discharges. The current stormwater program allows shipyards to be covered under the multisector general permit of September 29, 1995 or individual permits. The multisector general permit requires only visual observation of stormwater run-off. Shipyards with individual permits are currently required to sample stormwater run-off for specific parameters. Best Management Practices (BMPs) already in place at most shipyards are the best method of dealing with their stormwater discharges. The large land areas encompassed by most shipyards make it difficult and costly to minimize stormwater outfalls and provide treatment for the outfalls.

8. Extension of Permit Renewal Time Requirements. The industry supports revising permit renewal action from 5 years to 10 years. Additionally, shipyards favor the use of comprehensive stormwater pollution prevention plans and BMPs over the establishment of new limits. Nationwide, shipyards maintain high compliance records for shipyard stormwater and wastewater discharges. Most shipyards have detailed, comprehensive BMPs, toxics management programs and stormwater pollution prevention plans that provide the management and treatment practices necessary for maintaining compliance.

9. Funding Assistance for Advanced Technology/Best Available Technology (BAT) Development. The BATs and BMPs currently in place at shipyards are considered to be effective. More advanced technology likely exists for pollution prevention and treatment, but it is cost prohibitive for the industry to obtain such technology at this time. Shipyards may be willing to try new technologies if funding assistance was available and if EPA would be willing to negotiate permit

violations that could occur during the trials of new technology.

10. Effluent Guidelines. Effluent guidelines should continue to be performance based and allow industry flexibility to innovate in meeting the standards.

11. Exclusion of Groundwater Provisions from the CWA. Groundwater protection and management should remain the responsibility of laws other than the CWA. State and other federal laws (RCRA, CERCLA, Safe Drinking Water Act) adequately protect against groundwater contamination. States should have primacy for groundwater protection since the flow of groundwater tends to be local with unique geologic characteristics that are often confined within a state. Also, the point source program is not applicable to groundwater because the sources of groundwater contamination are diffuse and the groundwater connections with surface waters are often uncertain and difficult to establish.

12. Prevention of Citizen Suits Filed for Past Violations. Previous action was introduced that would have allowed citizen suits for past violations that were corrected and not repeated. Citizen suits are intended to improve water quality by allowing citizens to sue to enforce compliance with the CWA. Suits for past violations that have been corrected and not repeated serve little beneficial purpose.

Sincerely,

_____

For more information about the
National Shipbuilding Research Program
please visit:

http://www.nsrp.org/

or

http://www.USAShipbuilding.com/